AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently amended) ~~An erythropoietin (EPO) form having improved properties, wherein said EPO form is~~

~~(a) a~~A fusion protein comprising ~~a~~an Fc portion of an Ig molecule and an EPO molecule ~~(Fc-EPO)~~, wherein said Fc portion is fused covalently via its C-terminus directly or indirectly to said EPO molecule and ~~wherein~~ the Fc portion as well as the EPO portion may be modified or mutated, said fusion protein selected from the group consisting of:

~~(i) Fc - EPO~~	
~~(ii)~~(i)	Fc – L – EPO
~~(iii)~~(ii)	Fc – EPO_{desial}
~~(iv)~~(iii)	Fc – EPO_m
~~(v) Fc_m – EPO~~	
~~(vi)~~(iv)	Fc_m – EPO_m
~~(vii)~~(v)	Fc_m – L – EPO
~~(viii)~~(vi)	Fc – L – EPO_m
(vii)	Fc_m – L – EPO_m
~~(ix)~~(viii)	Fc – EPO_{trunc} and
~~(x)~~(ix)	Fc – L – EPO_{trunc}

wherein

EPO is glycosylated, non-glycosylated, partially glycosylated or otherwise modified in its glycosylation pattern;

EPO_{desial} is EPO which is partially sialylated ~~or non-sialylated~~;

EPO_m is EPO which is mutated ~~but not truncated~~ in its amino acid sequence and comprises at least one of the following changes: $Asn_{24,38,83}$ -> Gln, Ser_{126} -> Ala, His_{32} -> Gly, Ser_{34} -> Arg, and Pro_{90} -> Ala;

EPO_{trunc} is EPO which is truncated but not mutated in its amino acid sequence and which ends C-terminally at amino acid position 108, 98, 93, 88, 85 or 77 of EPO;

Fc_m is a Fc portion which is mutated and / or truncated in its amino acid sequence and/or modified in its glycosylation pattern, and

L is a linker molecule which has no protease cleavage site.,

~~or~~

~~(b) a non-fused human or mammalian EPO or EPO_m having the pattern of cysteines or disulfide bonds that differs from the pattern of cysteines or disulfide bonding of human or mammalian EPO.~~

2. (Original) An EPO form of claim 1, showing improved biological activity.

3. (Currently amended) ~~An EPO form~~ A fusion protein of claim ~~2~~ 1 having an extended serum half-life.

4. (Currently amended) ~~An EPO form~~ A fusion protein of claim 3, wherein said extended serum half-life is greater than 20 hours.

5. (Currently amended) The fusion proteins (iii), (iv), (vi) or ~~(viii)~~ (vii) of claim 1, wherein said fusion proteins have greater specific activity than the comparable Fc-EPO fusion proteins having no mutated EPO molecules.

6-7. (Canceled)

8. (Withdrawn) A fusion protein of claim 1, wherein the mutation of the Fc_m portion causes reduced affinity to Fc receptors.

9. (Withdrawn) A fusion protein of claim 1, wherein the linker L is $(Gly_4Ser)_x$, x = 1 – 4.

10. (Original) A fusion protein of claim 1, wherein at least one of the cysteine residues of the EPO molecule or EPO_m molecule is engineered.

11. (Currently amended) A fusion protein of claim 10 wherein the EPO or EPO_m moiety has a pattern of disulfide bonding distinct from human or mammalian erythropoietin.

12. (Canceled)

13. (Currently amended) A fusion protein ~~or a non-fused EPO~~ of claim 10, wherein said engineered cysteine residues form a disulfide bond.

14-15. (Canceled)

16. (Currently amended) A fusion protein according to claim 1, said fusion protein ~~being~~ comprising a whole Ig molecule.

17. (Currently amended) A fusion protein according to claim 1, wherein the Ig molecule and the EPO molecule ~~is~~ are of mammalian origin.

18. (Original) A fusion protein of claim 17, wherein the Ig molecule is human IgG.

19-23. (Canceled)

24. (Currently amended) A pharmaceutical composition comprising ~~an EPO form~~ a fusion protein according to claim 1 and ~~an phamaceutically~~ a pharmaceutically acceptable carrier, diluent or excipient.

25. (Original) A pharmaceutical composition of claim 24 containing at least one additional pharmaceutically effective drug and / or adjuvants.

26. (New) A fusion protein comprising an Fc portion of an Ig molecule and an EPO molecule, wherein said Fc portion is fused covalently via its C-terminus directly or indirectly to said EPO molecule and the Fc portion as well as the EPO portion may be modified or mutated, said fusion protein selected from the group consisting of:

(i) $Fc - EPO_m$

(ii) $Fc_m - EPO_m$

(iii) $Fc - L - EPO_m$, and

(iv) $Fc_m - L - EPO_m$

wherein

EPO_m is EPO which is mutated in its amino acid sequence and comprises Cys at position 88 and at least one of the following amino acid variations: position 29 is not Cys, position 33 is not Cys, and position 139 is Cys;

Fc_m is a Fc portion which mutated and/or truncated in its amino acid sequence and/or modified in its glycosylation pattern; and

L is a linker molecule which has no protease cleavage site.

27. (New) A fusion protein of claim 26, wherein the EPO_m is derived from human EPO and has at least one of the following mutations: $His_{32} \rightarrow Gly$, $Ser_{34} \rightarrow Arg$, and $Pro_{90} \rightarrow Ala$.

28. (New) A fusion protein of claim 26, wherein the EPO_m comprises cysteines at positions 29 and 88.

29. (New) A fusion protein of claim 26, wherein the EPO_m comprises cysteines at positions 29, 33, 88, and 139.